

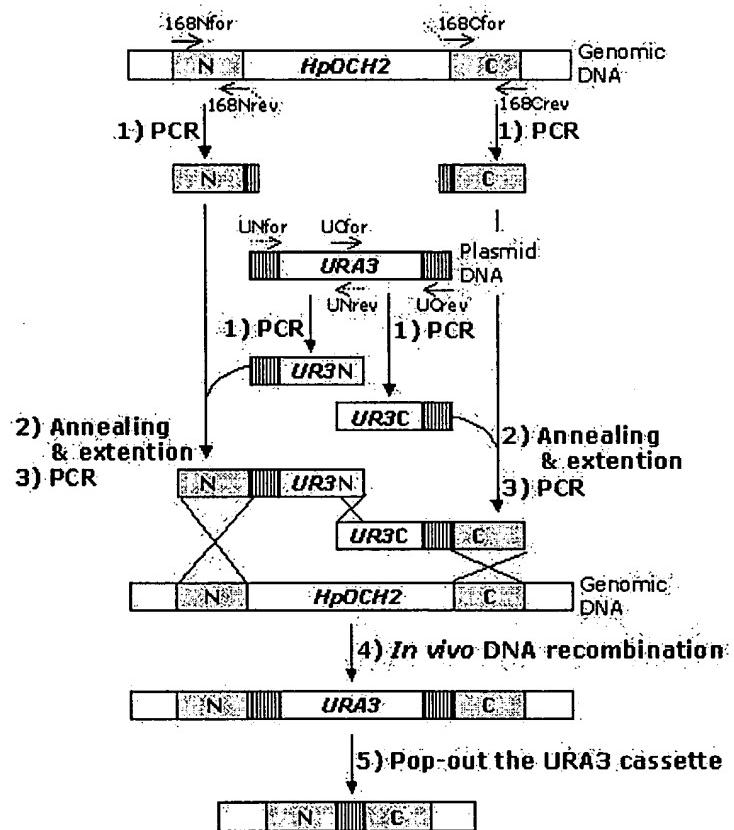
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Fig. 1

-9 cggtgaagaatggtgtattttaaattcatgtcaataaccaatgtcccggtgctgaag
M V Y F L N F M S I T N V P V L K
52 cgcgcgcgactctacatggcacaatgcgcgtgggttgcgtcttggtgcgtgcgt
R A R L Y M A T N R R L V V V L V V L L
112 tactgggtggtccagaacgtttggacgtggagccctggacgcgcgattggccaagtg
Y W V V Q N V W T W S P G T R D L A Q V
172 gacgcgaagatcgaggccgagctaaactcgatctacatactttggagcgcattgcgc
D A K I E A E L N S N L H T F G A H L R
232 cacttaaacccgcttcggcagagtgcggccaccctgcgtgaaaaactcaccttctatttc
H L N R L P A E S A T L R E K L T F Y F
282 ccatattatcctgaaaagccgtccgaaaccagatctggcagacatggaaaggcgtatctc
P Y Y P E K P V P N Q I W Q T W K V D L
352 gaagacgacaacttccccaagcgtacagacgcgtttcagaagacgtgggtcgagaaaaat
E D D N F P K Q Y R R F Q K T W V E K N
412 ccagactacgttaccacacttccggactctgtgattgaggactttgtggcagtttgc
P D Y V Y H L I P D S V I E D F V A S L
472 tacgcgaacgtgccggaggtggtcagacgttccgaaaaatcatgaag
Y A N V P E V V R A Y Q L L P K N I M K
532 gcggattttccggatttggatctacgcgcggaggcacctactcagacatggac
A D F F R Y L V I Y A R G G T Y S D M D
592 acggtgtgtttaagccgatcaaggactggccacgtttgatcgcgcacacttccacgct
T V C L K P I K D W A T F D R D L I H A
652 gcccacaataaggccgatctcccgatagatccagaaggcaagaaccacgcgtgggg
A D N K A D L S Q I D P E A R T T P V G
712 ctgggtattggcatttgaggccgacccggacaggccgactggcacgtggtttcgcgc
L V I G I E A D P D R P D W H E W F S R
772 agactgcagttctgcgcgtggacgttcaggcgaagccggacacccgcgtgcgc
R L Q F C Q W T I Q A K P G H P L L R E
832 ctgatcatccggatcgtggaggagacgttccgcacacatggcgaaaaaga
L I I R I V E E T F R K Q H M G V L K R
892 gtggaggcaaggactcggcgcagatcatgcgtggacaggaccggggatattaca
V E G K D S G A D I M Q W T G P G I F T
952 gacactctgttGattatctgaaacaatgtggcgagcgcacggcaagttggcgacgggtac
D T L F D Y L N N V A S D G K L G D G Y
1012 ggcgtgggtcggttgcgttgcgtggcaagcacggcaataagctgaaaaagacagaaatt
G V G S L Y W R K H G K Y K L K K T E I
1072 aacaagaataacgcggcattgcattctgaggaccagcttatcaactggaggcgtgc
N K N N E P L H S E D Q L I N W R S L T
1132 aacatggacaagccaaagatcatggggacgtaatgggttaccaatcacgagcttagt
N M D K P K I M G D V M V L P I T S F S
1192 ccgaacgtggggcacatggctcaaagagcagcgtcgataggctggcatttggagcat
P N V G H M G S K S S S D R L A F V E H
1252 ttatctgcgtggcaagccaaaaacaaataggaaaaataataattgcatt
L F S G S W K P K N K -
1312 ttagataattctcatgagcaggcacagaaacg

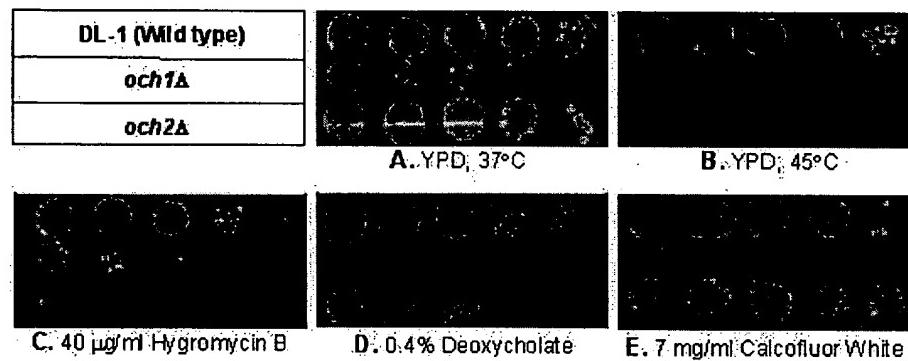
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Fig. 2

| | | |
|---------|-----|---|
| HsOch2p | 1 | MVYFLNPFMSITNPVPLKRAPYMAATNRRLVVVLWVILYUUV |
| HsOchlp | 1 | -MSKASPYRGIMTSSTSPPRKLISIFVGLLL |
| CaOchlp | 1 | -MLQLREPQMVKHGKIKLAVLGIWIFTTYFIISSL |
| PpOchlp | 1 | -MAKADGSLIYYNPHNPPRYYFYALIAFW |
| ScOchlp | 1 | -MSRKISIATRSKTIIVVTMIIYSLI |
| SpOchlp | 1 | -MLRLRLRSIVIGAAIAGSILLNFHGSIEGMEDLTEISMLEDWPAANKDYVGQOREEEELYDQP |
| HsOch2p | 42 | QNWUTWSPGTTRDIAQVDAKIEAKIN--SNLHTFGAELR-----HINRLPAESATLPEHLTIFYFPY |
| HsOchlp | 32 | GLILFKFSTSTSINTEDKIVSYLN--NFYKLNDPFRG-----AMPYDAAVTAERHLAKEFPY |
| CaOchlp | 35 | SSPTSTHRTKYSISKLQLAKDILIN--SNWRELCDMFQ-----NKRYSLPDISTLIQOLEYOFPY |
| PpOchlp | 30 | SVCVLYCPSQOLSSPKTDYPLTL--PSLDLKTRAP-----SOLSPGTVEDNLKRCLEBHF PY |
| ScOchlp | 29 | TFLNSKRLLSQQYPSKDDFKOTILLPTTSHSQDINLHKQI-----TVNKKKNQLENLICDOLISRAFPY |
| SpOchlp | 67 | SYKEEEDPDLEAKYLSDEEELKHSLEELDKENNYELHLRLYSFSQLQDFDENEKAUHMIVPDEYEFEV |
| HsOch2p | 100 | Y-PERIWENQIMOTURWDLEDDMFPIQYTFIQQKIN--EKPDPVYHLPDSEVIEDEWASLYAN--WEEW |
| HsOchlp | 87 | LNSABPNKKSIIQONWHVPSTQDPPHKKLVMKUKNE--MPITKYNLLTNEILIELIREKD--UPFVL |
| CaOchlp | 94 | I-EKSKIEPKNIQIQTOMWGDIDKSFFPRYILKQOQTH--DKMPDVKHYWPMKRCODLLIHLQYISO--WEIMA |
| PpOchlp | 88 | R-SYEIPFOHNUQTWRHSPSSESSPENFHDLCEGSI--QSPNMDHFUDPDAAWEMHHETER--UPFVL |
| ScOchlp | 91 | I-SOAPIMORWQJOTWIGADKNCFESSSETYKTHSCSYSPDHOYSLISDSDSIIPLKLNAYAP--WEWV |
| SpOchlp | 137 | P-YHADLBRKLITMISRD----EDERKVMPVTRFUR-INHESHEAMDDQSKALMISSECDSSWSKRS |
| HsOch2p | 166 | PAIOLLPKNIMKADFFKYLIVVYARCGTYSDMTWOLKPIKODWAFDRLDLHAADNK-----ADLSQI |
| HsOchlp | 153 | DAPEMILEMKIIPKDFARYLIFDNGCVYDITLTDLOKHVTWEDSDRMGK- |
| CaOchlp | 160 | KAYPIMPKSILKADFFKYLILFARCGTYSDMTWOLKPIKODWAFDRLDLHAADNK- |
| PpOchlp | 154 | EAFHLLAEPILIKADFFKYLILFARCGTYSDMTWOLKPIKODWAFDRLDLHAADNK- |
| ScOchlp | 158 | CAFKLMECNIKLAFFPLKYLIFARCGTYSDMTWOLKPIKODWAFDRLDLHAADNK- |
| SpOchlp | 200 | QYIYAHMLPULKADFFKYLWLIAFRCGYTSIDHTAPLGILNNMDFREYRKRN- |
| HsOch2p | 228 | DPEARTTPVCLVIGIEADPDPRDMLHEDESPRLOFQWTIQAKPGHILPRLIIPRIVETP- |
| HsOchlp | 204 | -----WAVFEDLWVWJXKHTIAPRIQFEQWTEKANHGPILRPLIAKILETEQAKRN- |
| CaOchlp | 214 | -----RSGLWWGIEADPDPRDMLHDWYAPRIQFCQWTIQAKPGHILPRLIIPRIVETP- |
| PpOchlp | 208 | -----MACLVIGIEADPDPRDMLHDWYAPRIQFCQWTIQAKPGHILPRLIIPRIVETP- |
| ScOchlp | 228 | SSDEKISHQPGCLVIGIEADPDPRDMLSEWYAPRIQFCQWTIQAKPGHILPRLIIPRIVETP- |
| SpOchlp | 251 | -----IRIUVIGIEADPDPRDMLHDWYAPRIQFCQWTIQAKPGHILPRLIIPRIVETP- |
| HsOch2p | 289 | -----HQEMCVLRVEEHD-----GADINQUTCPGIFTDTLFQYMMIIVASD- |
| HsOchlp | 258 | -----DKLQFYYBDDFEYDR-----CASVDIIVYOTCPGIFTDTLFQYMMIIVASD- |
| CaOchlp | 268 | -----NHEKCOLKEVWCHIK-----GCDIILNUTCPGIFTDTLFQYMMIIVASD- |
| PpOchlp | 262 | -----KERSYIYMMEEFDR-----GSDWLDWTCPGIFTDTLFQYMMIIVASD- |
| ScOchlp | 298 | -----SEKIDPRFEDDYNVNYIHKQRDETYBHSKLMNKVVDGSDIINWTCFGISSLIIFETIYHULRTNSDIL |
| SpOchlp | 304 | -----LED SKEL SKING-----WATUTCPGIFTDTLFQYMMIIVASD- |
| HsOch2p | 331 | -----CKICDGCVGCSLYWRKHGKYKLKKTENKRNNEPLHSID-----QIINQISLTNMRKKEKINGDWVIL |
| HsOchlp | 307 | -----DHQIRDQACELYC-----PETCEGDIWISWFFACFRAVVMDDWVIL |
| CaOchlp | 310 | -----PEPJKMKKK-----W-----ATIICWLFICMQHIAIDDUJL |
| PpOchlp | 304 | -----GHSGCGIGAGSAYNALSLIERDALSAAPNGKILKEKVKPGKYAQQWNLGEOTWILRSKLDIDIL |
| ScOchlp | 368 | -----LINPNPKNDKEDCESEATTPAKDVDNDTLSKSTRKFYKISKSLOSSNSWNUFESFPLKAVIINDWIL |
| SpOchlp | 341 | -----F SVENITMLPFLYLGCDWIL |
| HsOch2p | 392 | -----PITSFSEHMHMCEKSSSDILAEIHLFSGSWMPKNAK- |
| HsOchlp | 348 | -----IRASFREDK-----KNNCGEYOTWHHFGCSMENNNCKCEIKPGMIGYEGEDPNEVERELRKNDSKRDVIP |
| CaOchlp | 344 | -----PITSFSEHMHMCEKSSSDILAEIHLFSGSWMPKNAK- |
| PpOchlp | 371 | -----PITSFSEHMHMCEKSSSDILAEIHLFSGSWMPKNAK- |
| ScOchlp | 438 | -----PITSFSEHMHMCEKSSSDILAEIHLFSGSWMPKNAK- |
| SpOchlp | 362 | -----PITAESPECHWCGSSESFMNPWATWQHFAEAMWID |
| HsOch2p | | 100% |
| HsOchlp | 413 | CESKDVAPVKLAKRCAYPYTPY 27.3% |
| CaOchlp | | 42.3% |
| PpOchlp | | 40.0% |
| ScOchlp | | 40.4% |
| SpOchlp | | 30.8% |

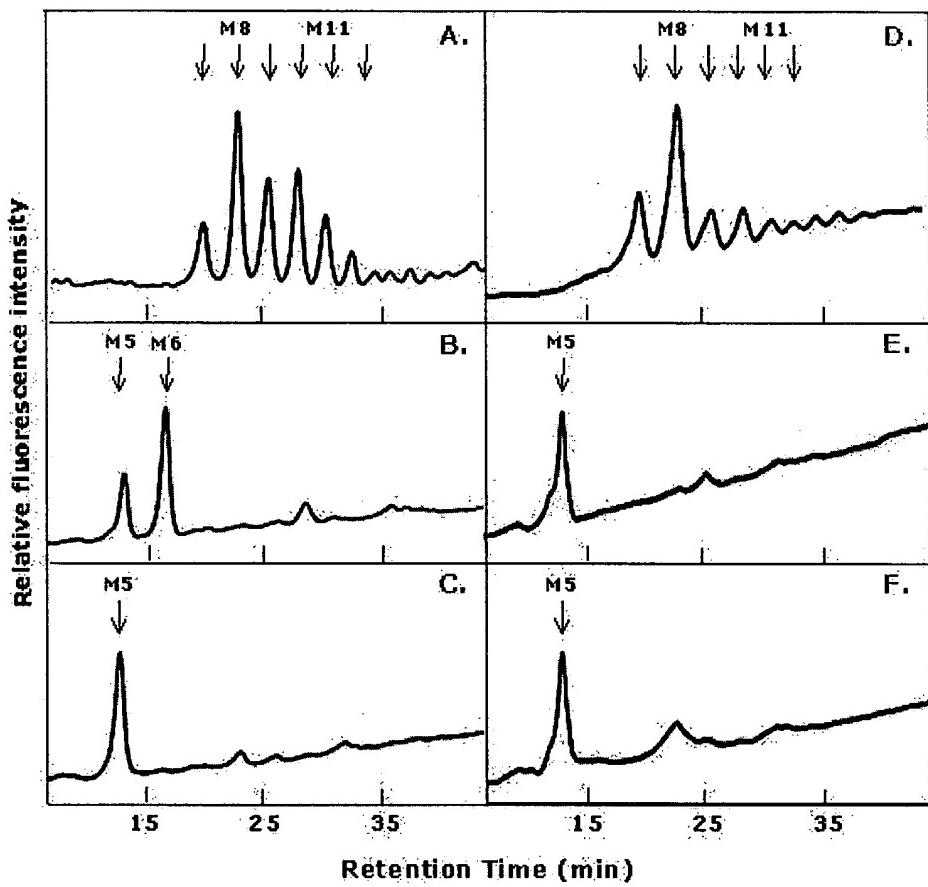
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Fig. 3



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Fig. 4

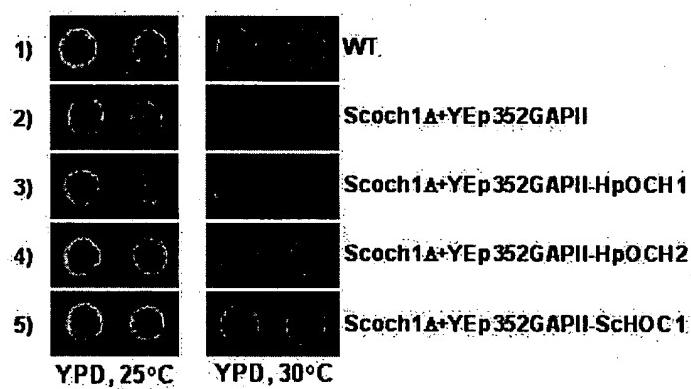


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Fig. 5

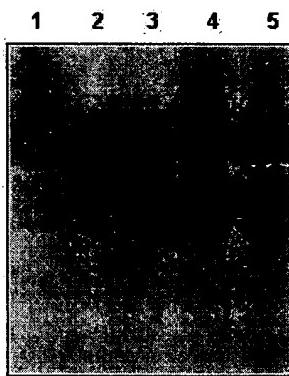


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Fig. 6

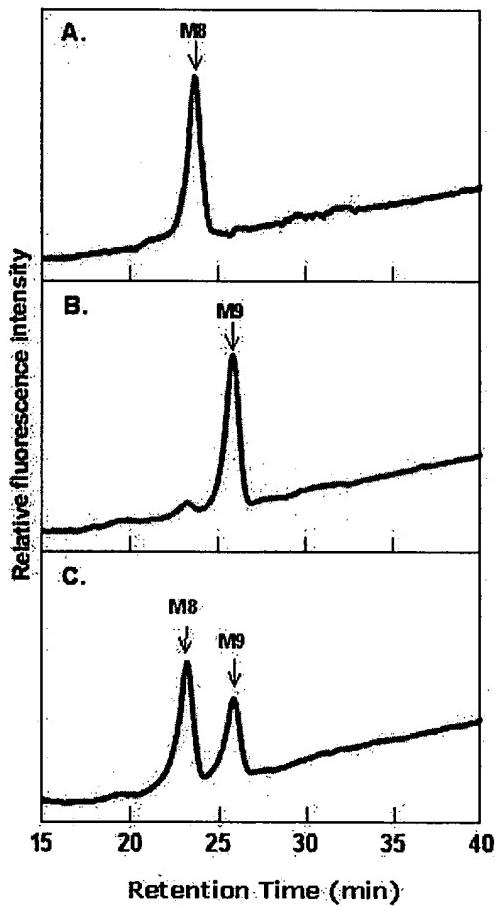
A.



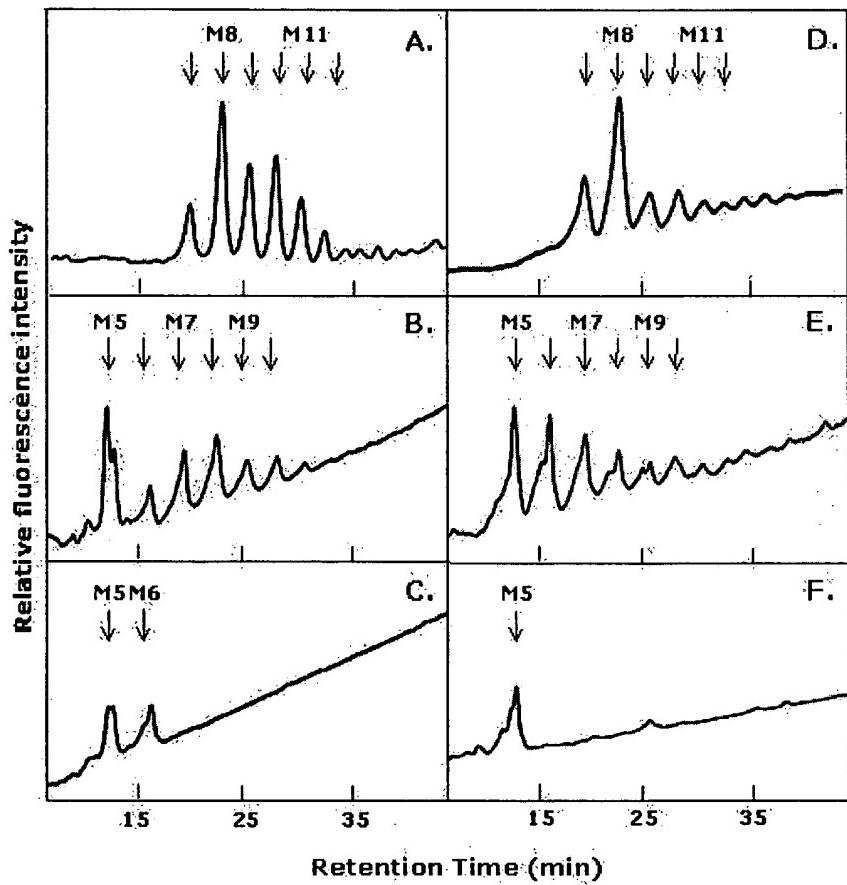
B.



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Fig. 7



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Fig. 8



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Fig. 9

| | ScHochp | StOchlp | HpOchlp | ORF379 | ORF168 | ORF288 | ORF580 | ORF100 | ORF576 |
|-----------------------------|----------------|-----------------|----------------|---------------|-----------------|---------------|---------------|---------------|---------------|
| ScHochp (396 aa) | | 20 | 21 | 40 | 23 | 18 | 19 | 18 | 17 |
| StOchlp (480 aa) | 36 | | 22 | 24 | 37 ^b | 21 | 18 | 17 | 15 |
| HpOchlp (435 aa) | 36 | 36 | | 19 | 22 | 22 | 32 | 21 | 19 |
| ORF379 (402 aa) | 63 | 40 | 34 | | 28 | 18 | 21 | 17 | 16 |
| ORF168 (428 aa) | 41 | 54 ^a | 39 | 45 | | 21 | 21 | 20 | 17 |
| ORF288 (414 aa) | 35 | 36 | 40 | 34 | 40 | | 21 | 51 | 33 |
| ORF580 (362 aa) | 34 | 36 | 48 | 35 | 39 | 40 | | 20 | 19 |
| ORF100 (425 aa) | 34 | 33 | 37 | 33 | 36 | 66 | 38 | | 32 |
| ORF576 (369 aa) | 30 | 31 | 33 | 30 | 32 | 50 | 33 | 47 | |

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